

Section 5.6.7 – Petroleum Vessel Loading, Ballasting and Transit Losses

Memo to Tammy Gould from David Wright, dated May 12, 2005

Petroleum vessel loading & unloading accounts for a significant source of photo reactive VOC emissions in Planning Area One (the Portland area), according to the calculations we provided to support the 15% VOC reduction Plan that the Board of Environmental Protection (BEP) posted for Public Comment in April of 2005. Robert McConnell, Emissions Inventory contact for Maine from EPA Region I, raised an issue regarding those calculations. He pointed out that Maine assumed that in 2002, 40% of the vessels off-loading petroleum in Portland Harbor did not have segregated ballast. That is, ballast water was taken into the same storage tanks that formerly held petroleum, thereby displacing residual petroleum vapors from the tanks into the atmosphere. This factor plays a significant role in VOC emissions from this source. However, US Coast Guard Regulations put into place decades ago required that segregated ballasting be phased out, and Mr. McConnell questioned whether the 40% value was accurate.

In response, I called the Marine Services Office of the US Coast Guard in Portland, Maine (1-207-780-3251). I consulted with MST III Echols at the station regarding the accuracy of this figure. He informed me that in 2002, all of the vessels entering Portland Harbor had been constructed after the Coast Guard regulations went into effect, and that zero (0) percent of the vessels in 2002 had unsegregated ballast. That is, on all vessels, ballast water was taken into separate holds, and therefore there was not vapor displacement due to ballasting.

I revised the 15% & 5% VOC reduction calculations accordingly, for our SIP Amendment Submittal.

NOTE: These changes were not incorporated into the 2002 NEI. This error resulted in an over reporting of VOC emissions in Cumberland, Penobscot and Waldo Counties.

Section 5.9.9 – Open Burning: Residential Yard Waste: Leaf and Brush Species

Page 135 – Table 2 is referred to and should be labeled Table 5.9.9-B. Table 3 is referred to and should be labeled Table 5.9.9-C.

Known Calculation Errors

1. Point Sources – Ammonia Emissions at Georgia-Pacific Corp. in Old Town

There were a number of errors in the 2002 Georgia-Pacific Corp. i-STEPS submittal. Through a series of letters, a number of those errors were corrected, most notably NOx emissions. However, neither Georgia-Pacific nor Maine DEP were able to accurately identify the source of the ammonia emissions error from the tissue machines. This error has remained unresolved and slightly skews the point source ammonia emission estimations.

Addenda to Final  
Maine Emissions Inventory 2002

2. Area Sources – Stage II Refueling Emissions in Cumberland County

It was discovered after May 1, 2005, that Maine was using an incorrect I/M file in its MOBILE6.2 runs. This may result in a slight under-reporting of VOC emissions from Stage II Refueling in Cumberland County. The error has been identified and fixed.

3. Area Sources – Human Cremation in York County

A calculation error resulted in incorrect activity data used for Human Cremation in York County. This error results in a slight under-reporting of all HAP emissions in York County.